

FORM PTO - 1449

INFORMATION DISCLOSURE STATEMENT

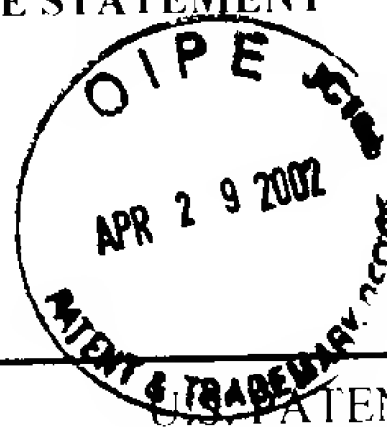
ATTORNEY DOCKET NO.: MEE-002

APPLICANTS: Miller *et al.*

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FILING DATE: February 9, 2001

EXAMINER: Huynh, P. GROUP: 1644



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U.S. PATENT DOCUMENTS

EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A1	5,707,986	1/13/98	Miller et al.	514	185	
	A2	5,733,876	3/31/98	O'Reilly et al.	514	12	
	A3	5,798,349	8/25/98	Levy et al.	514	185	
	A4	5,854,205	12/29/98	O'Reilly et al.	512	2	
	A5	6,117,862	9/12/00	Margaron et al.	514	185	
	A6	6,180,402	1/30/01	Granville et al.	435	375	
	A7	6,225,303	5/1/01	Miller et al.	514	185	

FOREIGN PATENT DOCUMENTS

EXAM. INIT.		DOCUMENT NUMBER	DATE	COUNTRY CODE	CLASS	SUB CLASS	FILING DATE	ABSTRACT ONLY	ENGLISH LANG (Y/N)
	B1	WO 95 24930 A	09/21/95						
	B2	WO 97 33619 A	09/18/97						
	B3	WO 97 45450 A	12/04/97						
	B4	WO 98 25648 A	06/18/98						
	B5	WO 99 03503 A	01/28/99						
	B6	WO 00 51638	09/08/00						
	B7	WO 01 51087 A	07/19/01						

OTHER ART, JOURNAL ARTICLES, ETC.

EXAM. INIT.	OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)								
	C1	Adamis et al. "Inhibition of Vascular Endothelial Growth Factor Prevents Retinal Ischemia - Associated Iris Neovascularization in a Nonhuman Primate" (1996) <u>Arch Ophthalmol</u> , Vol. 114, pp: 66-71.							
	C2	Ahmad et al "Photodynamic Therapy Results in Induction of WAF1/C1P1/P21 Leading to Cell Cycle Arrest and Apoptosis" (1998) <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 95, pp: 6977 - 6982.							
	C3	Allen et al. "Photodynamic Therapy: Tumor Targeting with Adenoviral Proteins" (1999) <u>Photochemistry and Photobiology</u> , Vol. 70, No. 4, pp: 512-523.							
	C4	Akhlynina et al. "Inulin-mediated Intracellular Targeting Enhances the Photodynamic Activity of Chlorin e ₆ " (1995) <u>Cancer Research</u> , Vol. 55, pp1014-1019.							

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C5	Arenberg et al. "Interferon- γ -inducible IP-10 (IP-10) Is an Angiostatic Factor That Inhibits Human Non-small Cell Lung Cancer (NSCLC) Tumorigenesis and Spontaneous Metastases" (1996) <u>J. Exp. Med.</u> Vol. 184, pp 981-992.
C6	Ball et al. "A Comparative Study of the Cellular Uptake and Photodynamic Efficacy of Three Novel Zinc Phthalocyanines of Differing Charge" (1999) <u>Photochemistry and Photobiology</u> , Vol. 69, No.3, pp: 390-399.
C7	Berg, K. and Moan, J. "Lysosomes and Microtubules as Targets for Photochemotherapy of Cancer" (1997) <u>Photochemistry and Photobiology</u> , Vol. 65, No. 3, pp: 403-409.
C8	Biolo et al. "Effect of Photosensitizer Delivery System and Irradiation Parameters on the Efficiency of Photodynamic Therapy of B16 Pigmented Melanoma in Mice" (1996) <u>Photochemistry and Photobiology</u> , Vol. 63, No. 2, pp: 224-228.
C9	Birchler M et al. "Selective Targeting and Photocoagulation of Ocular Angiogenesis Mediated by a Phage-derived Human antibody Fragment" (1999) <u>Nature Biotechnology</u> , Vol. 17, No. 10, pp: 984-988.
C10	Brem et al. "The Combination of Antiangiogenic Agents to Inhibit Primary Tumor Growth and Metastasis" (1993) <u>J. Ped. Surgery</u> , Vol. 28, No. 10, pp: 1253-1257.
C11	Bressler, et al. "Age-related Macular Degeneration" (1998) <u>Survey of Ophthalmology</u> , Vol. 32, No. 6, pp: 375-413.
C12	Brooks et al. "Integrin $\alpha_v\beta_3$ Antagonists Promote Tumor Regression by Inducing Apoptosis of Angiogenic Blood Vessels" (1994) <u>Cell</u> , Vol. 79, pp: 1157-1164.
C13	Brooks et al. "Requirement of Vascular Integrin $\alpha_v\beta_3$ for Angiogenesis" (1994) <u>Science</u> , Vol. 264, pp: 569-571.
C14	Ciardiello et al. "Antitumor Activity of Combined Blockade of Epidermal Growth Factor Receptor and Protein Kinase A" (1996) <u>J. Natl. Can. Inst.</u> Vol. 88, No. 23, pp: 1770-76.
C15	Ciulla T A et al. "Changing Therapeutic Paradigms for Exudative Age-related Macular Degeneration: Antiangiogenic Agents and Photodynamic Therapy" (1999) <u>Expert Opinion on Investigational Drugs</u> , Ashley Publications LTD, Vol. 8, No. 12, pp: 2173-2182.
C16	D'Amato et al. "Thalidomide is an Inhibitor of Angiogenesis" (1994) <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 91, pp: 4082-4085.
C17	Dimitroff C J et al. "Anti-Angiogenic Activity Of Selected Receptor Tyrosine Kinase Inhibitors, PD166285 And PD173074: Implications For Combination Treatment With Photodynamic Therapy" (1999) <u>Investigational New Drugs</u> , Vol. 17, No. 2, pp: 121-35.
C18	Dobi et al. "A New Model of Experimental Choroidal Neovascularization in the Rat" (1989) <u>Arch Ophthalmol</u> , Vol. 107, pp: 264-269.
C19	Dougherty et al. "Photodynamic Therapy" (1998) <u>J. Natl. Can. Inst.</u> , Vol. 90, No. 12, pp: 889-905.
C20	Ellerby et al. "Anti-cancer activity of targeted pro-apoptotic peptides" (1999) <u>Nature Medicine</u> , Vol. 5, No. 9, pp: 1032-1038.
C21	Ferrario et al. "Antiangiogenic Treatment Enhances Photodynamic Therapy Responsiveness in a Mouse Mammary Carcinoma" (2000) <u>Cancer Research</u> , Vol. 60, No. 15, pp: 4066-4069.
C22	Fingar et al. "Analysis of Acute Vascular Damage After Photodynamic Therapy Using Benzoporphyrin Derivative (BPD)" (1999) <u>British Journal of Cancer</u> , Vol. 79, pp: 1702-1708.
C23	Folkman, J. "Angiogenesis in Cancer, Vascular, Rheumatoid and Other Disease" (1995) <u>Nature Medicine</u> , Vol. 1, pp: 27-31.
C24	Friedlander et al. "Definition of Two Angiogenic Pathways by Distinct α_v Integrins" (1995) <u>Science</u> , Vol. 270, pp: 1500-1502.

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C25	Friedlander et al. "Involvement of Integrins $\alpha_v\beta_3$ and $\alpha_v\beta_5$ in Ocular Neovascular Diseases" (1996) <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 93, pp. 9764-9769.
C26	Granville et al. "Overexpression of Bcl-X _L Prevents Caspase-3-mediated Activation of DNA Fragmentation Factor (DFF) Produced by Treatment with the Photochemotherapeutic Agent BPD-MA" (1998) <u>FEBS Letters</u> , Vol. 422, pp: 151-154.
C27	Granville et al. "Rapid cytochrome c Release, Activation of Caspases 3, 6, 7 and 8 Followed by Bap31 Cleavage in HeLa cells Treated with Photodynamic Therapy" (1998) <u>FEBS Letters</u> , Vol. 437, pp: 5-10.
C28	Gupta et al. "Involvement of Nitric Oxide During Phthalocyanine (Pc4) Photodynamic Therapy-Mediated Apoptosis" (1998) <u>Cancer Research</u> , Vol. 58, pp: 1785-1788.
C29	Guyer et al. "Subfoveal Choroidal Neovascular Membranes in Age-Related Macular Degeneration" (1986) <u>Arch Ophthalmol</u> , Vol. 104 pp: 702-705.
C30	Hakem et al. "Differential Requirement for Caspase 9 in Apoptotic Pathways in Vivo" (1998) <u>Cell</u> , Vol. 94, pp: 339-352.
C31	Hanahan, D. and Folkman, J. "Patterns and Emerging Mechanisms of the Angiogenic Switch during Tumorigenesis" (1996) <u>Cell</u> , Vol. 86, pp: 353-364.
C32	He et al. "Photodynamic Therapy with Photofrin II Induces Programmed Cell Death in Carcinoma Cell Lines" (1994) <u>Photochemistry and Photobiology</u> , Vol. 59, No. 4, pp: 468-473.
C33	He et al. "The Induction of Partial Resistance to Photodynamic Therapy by the Protooncogene BCL-2" (1996) <u>Photochemistry and Photobiology</u> , Vol. 64, No. 5, pp: 845-852.
C34	He et al. "Variation in Photodynamic Efficacy during the Cellular Uptake of Two Phthalocyanine Photosensitizers" (1998) <u>Photochemistry and Photobiology</u> , Vol. 67, No. 6, pp: 720-728.
C35	Hockenbery et al. "Bcl-2 Functions in an Antioxidant Pathway to Prevent Apoptosis" (1993) <u>Cell</u> , Vol. 75, pp: 241-251.
C36	Hunt David W.C. et al. "Impact of PDT and Fas-mediated Apoptosis on Cells of the System" (1998) <u>Photochemistry and Photobiology</u> , Vol. 67, Spec. Issue, pp: 69S.
C37	Husain et al. "Photodynamic Therapy." (Age-Related Macular Degeneration). Chapter 17, pp: 297-307.
C38	Husain, et al. "Intravenous Infusion of Liposomal Benzoporphyrin Derivative for Photodynamic Therapy of Experimental Choroidal Neovascularization" (1996) <u>Arch Ophthalmol</u> , Vol. 114, pp: 978-985.
C39	Hyman et al. "Senile Macular Degeneration: A Case-Control Study" (1983) <u>American Journal of Epidemiology</u> , Vol. 118, No. 2., pp: 213-227.
C40	Ingher et al. "Synthetic Analogues Of Fumagillin That Inhibit Angiogenesis And Suppress Tumour Growth" (1990) <u>Nature</u> , Vol. 348, pp: 555-557.
C41	Kane et al. "Bcl-2 Inhibition of Neural Death: Decreased Generation of Reactive Oxygen Species" (1993) <u>Science</u> , Vol. 262, No. 19, pp: 1274-1277.
C42	Kerr, et al. "Apoptosis: A Basic Biological Phenomenon with Wide-Ranging Implications in Tissue Kinetics" (1972) <u>Br. J. Cancer</u> , Vol. 26, pp: 239-257.
C43	Kessel et al. "Biodistribution of Photosensitizing Agents" (1993) <u>Int. J. Biochem</u> , Vol. 25, No. 10, pp: 1377-83.
C44	Kessel, D. and Luo, Y. "Photodynamic therapy: A Mitochondrial Inducer of Apoptosis" (1999) <u>Cell Death and Differentiation</u> , Vol. 6, pp: 28-35
C45	Klein, B. and Klein, R. "Cataracts and Macular Degeneration in Older Americans" (1982) <u>Arch Ophthalmol</u> , Vol. 100, pp: 571-573

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C46	Kramer, et al. "Liposomal Benzoporphyrin Derivative Verteporfin Photodynamic Therapy" (1996) <u>Ophthalmology</u> , Vol. 103, No. 3, pp: 427-438.
C47	Kroemer, G. "The Proto-oncogene Bcl-2 and Its Role in Regulating Apoptosis" (1997) <u>Nature Medicine</u> , Vol. 3, No. 6, pp: 614-620.
C48	Lucas et al. "Multiple Forms of Angiostatin Induce Apoptosis in Endothelial Cells" (1998) <u>Blood</u> , Vol. 92, No. 12, pp: 4730-4741.
C49	Luo et al. "The Role of Mitochondrial Photodamage in PDT-induced Apoptosis" (1998) <u>Chemical Abstracts</u> Vol. 129, No. 13 & <u>Proc. Spie-Int. Soc. Opt. Eng.</u> , Vol. 3247, pp: 112-117.
C50	Manceri et al. "Combined effects of Angiostatin and Ionizing Radiation in Antitumour Therapy" (1998) <u>Nature</u> , Vol. 394, pp: 287-291.
C51	Miller et al. "Alternative Treatments of Neovascular Age-Related Macular Degeneration" (1999) Chapter 139, pp 2014-2027.
C52	Miller JW et al. "Photodynamic Therapy of Experimental Choroidal Neovascularization Using Lipoprotein-deliver Benzoporphyrin" (1995) <u>Archives of Ophthalmology</u> , Vol. 113, No. 6, pp: 810-818.
C53	Mori et al. "Photodynamic Therapy for Experimental Tumors Using ATX-S10(Na), a Hydrophilic Chlorin Photosensitizer, and Diode Laser." (2000) <u>Jpn. J. Cancer</u> , Vol. 91, No. 7, pp: 753-9.
C54	Moser et al. "Angiostatin binds ATP Synthase on the Surface of Human Endothelial Cells" (1999) <u>Proc. Natl Acad. Sci USA</u> , Vol. 96, pp: 2811-2816.
C55	Mosmann, T. "Rapid Colorimetric Assay for Cellular Growth and Survival: Application to Proliferation and Cytotoxicity Assays" (1983) <u>Journal of Immunological Methods</u> , Vol. 65, pp: 55-63.
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C57	Nicholson, D. and Thornberry, N. "Caspases: Killer Proteases" (1997) <u>TIBS</u> , Vol. 22, pp: 299-306.
C58	Obana et al. "Selective Occlusion of Choroidal Neovascularization by Photodynamic Therapy with a Water-Soluble Photosensitizer, ATX-S10" (1999) <u>Lasers Surg. Med.</u> , Vol. 24, No. 3, pp: 209-222.
C59	Obana et al. "Selective Photodynamic Effects of the New Photosensitizer ATX-S10(Na) on Choroidal Neovascularization in Monkeys" (2000) <u>Arch. Ophthalmol.</u> , Vol. 118, No. 5, pp: 650-658.
C60	Okamoto et al. "Animal Model: Transgenic Mice with Increased Expression of Vascular Endothelial Growth Factor in the Retina" (1997) <u>Amer. J. Path.</u> , Vol. 151, No. 1, pp: 281-291.
C61	Oleinick et al. "The Photobiology of Photodynamic Therapy: Cellular Targets and Mechanisms" (1998) <u>Radiation Research</u> , 150 (Suppl.), pp: S146-S156.
C62	O'Reilly et al. "Angiostatin Induces And Sustains Dormancy Of Human Primary Tumors In Mice" (1996) <u>Nature Medicine</u> , Vol. 2, No. 6, pp: 689-692.
C63	O'Reilly et al. "Angiostatin: A Novel Angiogenesis Inhibitor That Mediates the Suppression of Metastases by a Lewis Lung Carcinoma" (1994) <u>Cell</u> , pp: 315-328.
C64	O'Reilly et al. "Endostatin: An Endogenous Inhibitor of Angiogenesis and Tumor Growth" (1997) <u>Cell</u> , Vol. 88, pp: 277-285.
C65	Pidgeon & Colles et al. "Recent Developments In Tunable Lasers For Spectroscopy" (1979) <u>Nature</u> , Vol. 279, pp: 377-381.
C66	Pollack et al. "Repair of Retinal Pigment Epithelium and Choriocapillaries After Laser Photocoagulation: Correlations Between Scanning Electron, Transmission Electron and Light Microscopy" (1997) <u>Opthal. Res.</u> , Vol. 29, pp: 393-404.

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C68	Renno et al. "Photodynamic Therapy Using Lu-Tex Induces Apoptosis In Vitro, and its Effect is Potentiated by Angiostatin in Retinal Capillary Endothelial Cells" (2000) <u>Inves. Ophthal. & Vis. Sci.</u> Vol. 41, No. 12, pp: 3963-71.
C69	Ryan "Subretinal Neovascularization: Natural History of an Experimental Model" (1982) <u>Arch Ophthalmol.</u> Vol. 100, pp: 1804-1809.
C70	Schmidt-Erfurth, U. et al. "Photodynamic therapy in Ocular Vascular Disease" (1998) <u>Laser Phys.</u> , Vol. 8, No. 1, pp: 191-198.
C71	Senior, K. "Ageing eyes retain their mystery." (1999) <u>The Lancet</u> Vol. 353, pp: 818.
C72	Separovic et al "Association of Ceramide Accumulation with Photodynamic Treatment-Induced Cell Death" (1998) <u>Photochemistry and Photobiology</u> , Vol. 68, No. 1, pp: 101-109.
C73	Sharma A. et al. "Combination of Photodynamic Therapy and Angiogenic Therapy for the Treatment of Human Breast Cancer in Nude Athymic Myce" (1996) <u>Proceedings of the Annual Meeting of the American Association for Cancer Research, US, Philidelphia, AACR</u> , Vol. Meeting 87, pp: 291.
C74	Stellmach et al. "Prevention of Ischemia-Induced Retinopathy by the Natural Ocular Antiangiogenic Agent Pigment Epithelium-Derived Factor" (2000) <u>Proc. Natl. Acad. Sci.</u> pp: 1-5.
C75	Tolentino et al. "Vascular Endothelial Growth Factor Is Sufficient to Produce Iris Neovascularization and Neovascular Glaucoma in a Nonhuman Primate" (1996) <u>Arch Ophthalmol.</u> Vol. 114, pp: 964-969.
C76	Varnes et al. "Photodynamic Therapy-Induced Apoptosis in Lymphoma Cells: Translocation of Cytochrome c Causes Inhibition of Respiration as Well as Caspase Activation" (1999) <u>Biochem. & Biophys. Res. Com.</u> , Vol. 255, pp: 673-679.
C77	Veis, et al. "Bcl-2-Deficient Mice Demonstrate Fulminant Lymphoid Apoptosis, Polycystic Kidneys, and Hypopigmented Hair" (1993) <u>Cell</u> , Vol. 75, pp: 229-240.
C78	Virgill et al. "Bcl-2 Overexpression in the HaCaT Cell Line Is Associated with a Different Membrane Fatty Acid Composition and Sensitivity To Oxidative Stress" (1998) <u>Free Radical Biology & Medicine</u> , Vol. 24, No. 1, pp: 93-101.
C79	Voest et al. "Inhibition of Angiogenesis In Vivo by Interleukin 12" (1995) <u>J. Nat. Can. Inst.</u> Vol. 87, No. 8, pp: 581-586.
C80	Vrouenraets, et al. "Targeting of a Hydrophilic Photosensitizer by Use of Internalizing Monoclonal Antibodies: A New Possibility for Use in Photodynamic Therapy" (2000) <u>Int. J. Cancer</u> , Vol. 88, pp: 108-114.
C81	Weishaupt et al. "Identification of Singlet Oxygen as the Cytotoxic Agent in Photo-inactivation of a Murine Tumor" (1976) <u>Can. Res.</u> , Vol. 36, pp: 2326-2329.
C82	West et al. "A Comparson Of The Sensitivity To Photodynamic Treatment Of Endothelial And Tumour Cells In Different Proliferative States" (1990) <u>Int. J. Radiat. Biol.</u> , Vol. 58, No. 1, pp: 145-156.
C83	Woodburn et al. "Localization and Efficacy Analysis of the Phototherapeutic Lutetium Texaphyrin (PCI-0123) in the Murine EMT6 Sarcoma Model" (1997) <u>Photochemistry and Photobiology</u> , Vol. 65, No. 3, pp: 410-415.
C84	Young et al "Lutetium Texaphyrin (PCI-0123): A Near-Infrared, Water-Soluble Photosensitizer" (1996) <u>Photochemistry and Photobiology</u> , Vol. 63, No. 6, pp: 892-897.
C85	Zhang et al. "Antisense Bcl-2 Retrovirus Vector Increases the Sensitivity of a Human Gastric Adenocarcinoma Cell Line to Photodynamic Therapy" (1999) <u>Photochemistry and Photobiology</u> , Vol. 69, No. 5, pp: 582-586.

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	C86	International Preliminary Examination Report for PCT/US01/04231 dated May 12, 2001 (5 pages): ———
EXAMINER		DATE CONSIDERED <i>12/5/02</i>

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